

Eminent venereologists 4: Jonathan Hutchinson

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"We older men who remember Sir Jonathan Hutchinson well recall a tallish dark figure that changed very little from middle life to old age; dark eyes that seemed to look past you through his spectacles, black hair and beard lengthening and growing grey with age, a suit of black broadcloth and a top hat that grudgingly gave way to a wide-awake. We see him presiding at our medical meetings and addressing them in precise clear-cut sentences, rather solemn, without much sparkle, but full of meat, and made attractive by more than a trace of Yorkshire accent".¹

Hutchinson (fig) was one of the great figures of Victorian medicine. He was born in 1828 at Selby, in



Fig. Sir Jonathan Hutchinson by Spy.

Yorkshire, the second of a family of twelve children. His father had become prosperous in the flax trade, and both he and his wife were deeply committed members of the Society of Friends, both being descended from long lines of Quaker ancestors. Hutchinson was not sent to school, but received his early education from governesses. The family atmosphere was happy and secure but serious and pious, even the cut of the clothes or the width of the hat brim being regarded as important markers of religious conformity.² By the age of 17 years Hutchinson had decided to become a missionary and persuaded his father to let him study medicine, which would be an important asset in this work. Accordingly, in 1845 he was apprenticed to Dr Caleb Williams, a Quaker with a large practice in York, for five years; during the last two of these he also attended the small school of medicine at York. His letters at this time show him to be hard-working and conscientious, but perhaps rather a prig.³

In 1850 Hutchinson went to London for clinical instruction at St Bartholomew's Hospital. The warden of the students' hostel was then the surgeon James Paget, who was to become his lifelong friend and mentor. He qualified the same year and returned to York as House Surgeon, but he missed the interest and excitement of London's medical life and returned there in 1851. Paget found him a junior position at the City of London Hospital for Diseases of the Chest. He lived frugally. His days were spent in hospital practice and coaching, and he was already contributing case reports to medical journals. His evenings were devoted to philanthropic work in the poorer parts of London. At first he was undecided about his future, but by 1853 his interest in medicine was such that, as he explained in a letter to his father, he had given up the idea of missionary work and decided to become a surgeon. There were always strong ties between father and son; in 1854 Hutchinson yielded to his father's rooted objection to any form of military service and refused the offer of a surgical appointment in the Crimea, where many of his colleagues were gaining valuable experience. However, in the same year he was appointed Surgeon to the Metropolitan Free Hospital, and soon after joined the staff of the Royal London Ophthalmic Hospital (Moorfields) and the Blackfriars Hospital for Diseases of the Skin. His most important appointment came in 1858, when he became Assistant

Surgeon at the London Hospital. At the time he was not a Fellow of the Royal College of Surgeons, but he passed the examinations in 1862 and in the following year was appointed Surgeon to the London Hospital and Assistant Surgeon to Moorfields.

Hutchinson now had responsibility, as an operating surgeon, for 60 beds at the London Hospital, where he also lectured in surgery and ophthalmology, as well as appointments at Moorfields, the Blackfriars Skin Hospital and the Metropolitan Free Hospital. He was deeply committed to teaching, and wrote voluminously. In addition to this formidable work load he had an expanding private practice in general surgery, ophthalmology, dermatology, and particularly in syphilis, a disease with which he was fascinated all his life.

In 1856 Hutchinson married Jane Pynsent West, a sensitive and artistic Quaker girl, and they settled in a house in Finsbury Square in the City of London, which was shared with three colleagues—the ophthalmologists Tay and Nettleship and the neurologist Hughlings Jackson. The latter was to become Hutchinson's most intimate friend. Like him he was a Yorkshireman, and had studied under Paget at St Bartholomew's. Hutchinson had persuaded him to develop his interest in neurology, and later obtained for him a post as physician to the London Hospital, where he was to achieve great distinction; it has been said that Hughlings Jackson was Hutchinson's greatest contribution to medicine.² Hutchinson and his wife eventually had nine children (one of whom also became a surgeon at the London Hospital). In 1863 he had bought a property near Haslemere in Surrey, and the family spent increasing amounts of time there. After his father's death in 1872 Hutchinson could afford to buy a large country house and estate in Haslemere called Inval; this became the family's country home, Hutchinson himself spending weekends and holidays there. In 1874 he moved from Finsbury Square to a more fashionable area in the West End of London, Cavendish Square. He had been reluctant to move. His wife, writing to one of her daughters, said: "Sir James Paget tells Papa he *must* go, and give up all hope there of teaching and advancing science, for it is time he attended to No. 1. He can do that there but nothing else. This quite scared Papa, and I can't help smiling at how advice which would attract most men disgusts him, and he thinks he had better stop here. We have not quite decided yet."¹ The move was eventually made, and despite Paget's prediction Hutchinson was able to continue his various activities as before.

As time went by Hutchinson became a central figure in British medical life. He was active in London's medical societies and was president in turn of most of them. He travelled to hospitals in Europe, and in Paris became friendly with the great French venereologist Fournier. In due course he received

many honorary degrees. Although he was not a man to invite honours for their own sake, he was delighted when he was elected a Fellow of the Royal Society in 1882. Having filled many offices in the Royal College of Surgeons over the years, he was finally elected President in 1889. According to Johnston Abraham,⁴ he refused a peerage offered him by Asquith, the Prime Minister; eventually, he accepted a knighthood in 1908, at the age of 80.

Hutchinson was a prolific author and editor. He was secretary to the New Sydenham Society, which published translations of the best modern continental works, during the whole of its existence, 1859–1907. He edited the *British Medical Journal* for a short time in 1869. His *Illustrations of Clinical Surgery* appeared in several volumes between 1878 and 1884, and a smaller *Atlas* in 1895. These publications provide a miscellany of plates and commentaries, mostly of skin diseases and syphilitic lesions, but also of cancers, diseases of joints, congenital malformations and so on arranged in no particular order. *Archives of Surgery*, which appeared between 1889 and 1900, is along the same lines. The ten volumes of this extraordinary work were written entirely by Hutchinson. There are descriptions of interesting cases, many of them of syphilis, illustrations and commentaries, and expressions of his opinions on a wide variety of medical and surgical subjects. It is perhaps his greatest work apart from his papers on syphilis. Osler wrote "When anything turns up which is anomalous or peculiar . . . I tell my students to turn to Mr Hutchinson's *Archives of Surgery*, as if it is not mentioned in them it is surely something very much out of the common",⁵ and the medical historian Garrison believed that the work will "some day be studied like the works of John Hunter".⁶ Hutchinson's discursive style of teaching, based on the study of individual case histories, is shown in the first edition of his book *Syphilis*, which was dedicated to Fournier and appeared in 1887.⁷ Only a fifth of the work is devoted to a systematic description of the disease and its treatment, and the remainder to a series of case reports with commentaries. The second edition, largely rewritten, appeared in 1909;⁸ it is laid out on more conventional lines, without the commentaries.

Postgraduate teaching made a great appeal to Hutchinson, and he was devoted to the idea of "objective teaching" by the use of specimens, models, diagrams and other illustrative material. In 1868 he had suggested to the British Medical Association that it should organise an exhibition demonstrating recent advances in medicine at its annual meeting. This suggestion was adopted, and Hutchinson prepared the first exhibition; they were to become a feature of the annual meetings for many years. Hutchinson retired from the London Hospital in 1883 with the intention of establishing a clinical

museum of specimens, models, pictures and diagrams, and this was subsequently expanded into a "Polyclinic", in effect a postgraduate medical centre, which opened in 1889. In addition to the museum there were lectures, demonstrations and public consultations on poor patients who could not afford West End fees. The project was very successful for a time, particularly with general practitioners, but was regarded with hostility by the medical establishment and the Polyclinic did not long survive Hutchinson's retirement from it;¹ the large collection of illustrations was bought by Osler and taken to Johns Hopkins Hospital. Hutchinson was very disappointed at the failure of his project, but he was ahead of his time. He had tried to amalgamate the Polyclinic with a general hospital, but there was to be no post-graduate hospital in London for thirty years after his death.

Hutchinson's enthusiasm for teaching museums did not end with the Polyclinic. In 1883 he established at his home at Haslemere an Educational Museum; initially devoted to local natural history, this was gradually enlarged to become a museum of mankind with fossils, drawings and specimens to illustrate the descent of man and his achievements in science and art. Hutchinson created an aviary and vivarium, and even provided at the entrance to the museum little pots of wild flowers with accompanying notes.² Nothing pleased him more than to escort groups of friends through the museum, and he gave weekend lectures to local inhabitants which ranged from natural science to evolution and poetry; he believed, he said, in a "mixed diet". An offshoot of these activities was the publication in 1897 of *The Centuries*, a chronological synopsis of history with interleaved blank pages for the reader's own notes. Hutchinson's museum survived for many years after his death. He established a similar museum in Selby, his birthplace, but it was not a success.

Although not a countryman like Benjamin Bell, Hutchinson enjoyed rural life. At Inval he and his wife often entertained hospital colleagues and visitors from abroad. They would be taken for walks through the beautiful Surrey countryside, with many a halt to discuss features of geological or botanical interest. Hutchinson himself was a good shot, but many of his friends were not and the London Hospital shooting parties were evidently rather perilous affairs. After he retired from the hospital Hutchinson took a less active part in London's medical life, his time being mostly devoted to his private consulting practice and to his Polyclinic and educational museum. His wife died in 1887 at the age of 53, and after this he divided his time between Cavendish Square and Haslemere. Eventually he retired to the country completely. He built a new house called "The Library"—he was a voracious reader, not only of medicine and natural history, but

of biographies, poetry and novels—and there he spent the closing years of his life, looked after by his daughters, with Hughlings Jackson as his constant companion until his death in 1911. Hutchinson himself died in 1913 at the age of 85.

HUTCHINSON AND SYPHILIS

Hutchinson's interest in syphilis began early in his career. While he was at St Bartholomew's Hospital in 1849 he described two cases of keratitis associated with congenital syphilis. Four years later he came across a case of "strumous" disease of the skull in a young man whose mother had syphilis; on perusing the literature he realised that very little had been written about congenital syphilis beyond the neonatal period and decided to make a special study of its later manifestations. He made a retrospective survey of all the patients suspected of having "hereditary syphilis" who had attended Blackfriars Hospital for Diseases of the Skin and Moorfields Eye Hospital, and gathered some new cases of his own. He published his results in a series of papers between 1857 and 1863.

He had noted a peculiar development of the permanent teeth, particularly the upper incisors, in subjects who had suffered from syphilis in infancy. The teeth are small, short, and narrow towards their free edges, where they are notched vertically; they are discoloured, and wear easily. Hutchinson had mentioned this observation at a meeting of the Pathological Society, but since it had been greeted with "expressions of incredulity" he decided to publish clinical details of 13 cases, with illustrations.³ The patients were aged between five and 28 years, and most of them had interstitial keratitis; a clear history of syphilis in one or other parent, or of unequivocal neonatal disease, was established in every case. As was the custom at the time, this report was considered by a committee of the Pathological Society. The hypothesis was thought to be interesting, but more evidence was needed before it could be accepted. In due course this was forthcoming when Hutchinson published details of a further 70 cases.¹⁰

At the same time as these papers were appearing, Hutchinson published the results of his studies of the association between congenital syphilis and interstitial keratitis. He gave details of 64 cases.¹¹ The old term "strumous corneitis", which implied a connection with tuberculosis, was abandoned as meaningless in this context. The reasons for regarding the disease as a manifestation of syphilis were: (1) there was a history of either parental or neonatal syphilis in all cases, (2) it is associated with the characteristic dental abnormalities already described, (3) it preferentially affects the oldest living child in a family, and (4) there is often a history of syphilis in other siblings. Hutchinson's conclusion that chronic interstitial keratitis was due to syphilis was a new

idea, and for many years was not generally accepted. It was contradicted by many ophthalmologists and paediatricians, and as late as 1896, at a meeting of the Berlin Medical Society, the majority spoke against it.⁵

In 1858 Hutchinson read a paper at the annual meeting of the British Medical Association in Edinburgh on the recognition of "inherited syphilis" in adults, which was later published.¹² It gives a vivid description of a patient with late congenital syphilis. There is a "*bad, pale, earthy complexion, a thick and pitted skin, a sunk and flattened nose, and scars of old fissures about the angles of the mouth . . . the nails are stumpy and broken . . . and the hair is thin and dry.*" He goes on to describe the state of the teeth, and the frequent destruction of the palate. Acute iritis can occur in early congenital syphilis, although it is uncommon, but as the subject advances from childhood to early adult life he becomes liable to interstitial keratitis. Having mentioned some rare signs of the disease, the author concludes that "*it is not by any one symptom that the diagnosis of hereditary syphilis can ever be supported but by the careful estimation of the entire group.*" Cases in which deafness was associated with congenital syphilis were mentioned in passing in several of Hutchinson's early works, but it was evidently difficult to determine the structures attacked, or indeed whether syphilis was really responsible for the deafness. In 1861 Hutchinson and Hughlings Jackson wrote a paper on the subject.¹³ Of 100 cases of congenital syphilis collected by Hutchinson ten were deaf, but of these nine became so after otorrhoea. The authors then describe a girl of 15 with unequivocal late congenital syphilis who developed bilateral tinnitus followed by total deafness, without antecedent otorrhoea. By 1863, when he published his *Clinical Memoir*,¹⁴ Hutchinson felt able to characterise deafness due to congenital syphilis more fully. It affects older children or adults and is eventually bilateral. Although there may be a history of otorrhoea, this is usually "trivial". He thought that the deafness is due to disease of the auditory nerve or labyrinth, and the prognosis for hearing is "very unfavourable". Thus the eponymous triad was complete. D'Arcy Power, writing in 1926,¹⁵ stated that hardly anything had been added to our knowledge of these subjects since Hutchinson described them, and this remains true today.

Hutchinson was recognised as the foremost British syphilologist of the 19th century. He used to say that he was able to learn so much about the disease because many of his patients belonged to the "educated classes"—they could give good histories, and it was possible to keep them under surveillance for many years. In 1879 he gave a notable address to the Lancashire and Cheshire branch of the British Medical Association on "Syphilis as an Imitator".¹⁶ He described how it could mimic not only a mul-

titude of skin diseases but eye conditions such as uveitis and retinitis pigmentosa and a variety of neurological disorders. Hutchinson's ideas on this subject influenced the teaching of generations of medical students, who were constantly warned never to forget syphilis in differential diagnosis. With the decline of syphilis this advice has been largely forgotten, but it may have to be re-learned one day.

In the 19th century, smallpox vaccination in England was mostly performed with vesicle fluid from a recently vaccinated child (called a "vaccinifer"). Arm to arm vaccination was a simple way of maintaining a source of virus, but in many European countries was recognised as carrying a serious risk of transmitting other infections, particularly syphilis. Hutchinson published a personal series of 23 cases in which primary chancres had developed on the arm of the recipient,¹⁷ giving for each case details of the vaccinifer, the vaccinifer's parents and the subjects vaccinated from the same source; the amount of work in tracing and examining all these people must have been enormous. He proposed measures to prevent or at least minimise these infections, such as not using as vaccinifer a child who was unknown to the vaccinator, or a first-born child, but he was accused of being "antivaccination". Great Britain was one of the last countries to adopt calf lymph for vaccination; this was initiated in 1881, but arm to arm vaccination was not banned until 1898.¹⁸

Hutchinson believed that syphilis was a "specific fever", differing from the others only by the prolonged intervals between its various stages. Although never a laboratory worker himself, he was aware of discoveries in the new science of bacteriology. Writing in 1887, he stated: "[*Syphilis*] depends on a living and specific microbe, and it is contagious or transmissible only so long as that microbe retains its vitality . . . considering the successes which the study of bacteria has attained in late years, it is certainly surprising that no one has yet been able to demonstrate the specific microbe of syphilis."¹⁹ This was written 18 years before *Treponema pallidum* was discovered by Schaudinn and Hoffmann. While he did not exactly pooh-pooh it, Hutchinson's reception of one of the most important events in the history of syphilology seems rather muted: "*We had but little to learn from the ocular demonstration of the parasite and the giving to it of a name. To those minds incapable of accepting as practically proven anything not actually demonstrated, the discovery is invaluable; and, at the same time, it furnishes an important weapon of defence to those who for themselves had long ago accepted its conclusions.*"²⁰ Crissey and Parish²¹ have the impression that "*he rather resented the discovery of bacteria—he found them inconvenient and difficult to fit into his set ideas on pathogenesis.*" It had become apparent that *T. pallidum* was too large an organism to be conveyed by spermatozoa, as would be required for the direct

infection of the foetus by its father. Paternal transmission had been believed by generations of venereologists, including Hutchinson: "*There is no doubt whatever that syphilis may be inherited from one or the other parent, but in English practice the great majority of cases of infantile syphilis are of paternal inheritance. Comparatively seldom do we meet with cases in which the mother was the one who suffered from syphilis.*"²² He was reluctant to abandon on bacteriological grounds a concept which he regarded as a clinical fact: "*We listen with much respect to the arguments which those who propound these views urge in their support, but decline to accord them that infallibility which they seem desirous to claim*". He struggled to explain how a syphilitic father and a "normal" mother could have a child with congenital syphilis, but to discover the truth a serological test for syphilis was needed. Details of the "Wassermann test" were published in 1906, but it came too late for Hutchinson; in the second edition of his book on syphilis he dwelt on the chances of error and on the need for more research, but within a few years of his death it had been shown that the mothers of children with congenital syphilis were infected,²³ and the idea of paternal transmission was abandoned.

Hutchinson advocated mercury for the treatment of early syphilis; unlike many of his contemporaries, he believed that treatment should be started immediately the diagnosis was made and not deferred until there was evidence of secondary syphilis. He favoured continuous administration of "grey powder" (metallic mercury ground with chalk), in a dose low enough to avoid pyralism, for a minimum of six months. Inunction of mercury ointment was restricted to special cases such as children with congenital syphilis. Iodides, often combined with mercury, were used for the treatment of late syphilis. Here, he would continue treatment for two years and if there had been no "reminders" he would regard the patient as cured. Many of his colleagues thought that his views on the prognosis of syphilis treated in this way were too optimistic, but he would not shift his ground; as always, he referred to his clinical experience: "*My own years having been unusually prolonged . . . I have been able to secure a kind of experience which falls to the lot of but few. I have seen many of those whom in their early vigour I had treated for syphilis, now in honoured grey hairs and apt to boast of their grandchildren.*"²⁰ Organic arsenicals were introduced by Ehrlich in 1906, but Hutchinson was doubtful of their value. He regarded arsenic as toxic and potentially oncogenic, and continued to use mercury and iodides.

HUTCHINSON THE MAN

Like John Hunter, Hutchinson was a naturalist who took to medicine. He was interested in all natural phenomena and was gifted with great powers of

application and a remarkable memory. Although brought up a Quaker, as an adult he developed a different set of beliefs based on scientific ideas, particularly the doctrine of evolution. He believed that knowledge has the power to raise the standards of life for both the individual and society in general. The accumulation of facts is thus not only essential but a duty.² Throughout his long life he did this by reading and by his own observations; even after his partial retirement from medicine he continued to study natural history at Haslemere. Nothing escaped him, and he was an inveterate notetaker. Hirschberg recorded a visit to Hutchinson's home: "*While we took a walk over the fields and hills he frequently removed a large memorandum book from his coat and wrote notes. One was as follows: 'Haslemere, May 1877. Dr Hirschberg from Berlin states that compulsory military service represents an important aid in the education of the people.'*"²⁴

Hutchinson's phenomenal memory made him devastating at clinical meetings. The presenter of a novel or unusual case could easily be told that Hutchinson had seen a similar or identical condition perhaps 20 years ago, and he would produce details from his collection of case notes.²⁵ He became recognised as a medical and surgical referee for the diagnosis of obscure complaints and rare diseases. He had a logical mind, and was able to integrate apparently disparate facts into a coherent whole, as was shown in his studies of congenital syphilis. Like some other Yorkshiremen Hutchinson had no sense of humour, and he could stubbornly cling to fallacious opinions which should have been discarded long ago. Until the end of his life he believed that leprosy was caused by eating bad fish and nothing would shake him, not even Hansen's discovery of the leprosy bacillus.²⁶

Hutchinson regarded himself as a surgeon; in the operating theatre he was safe, if not particularly deft or rapid.²⁷ Although he often wrote on surgical subjects such as operative technique and Lister's antiseptic method, other branches of medicine—particularly ophthalmology and dermatology—were of equal importance to him. He had been called "the Universal Specialist", and perhaps it was inevitable that his interests should converge in his work on congenital syphilis. It is by this work, a dozen papers in an enormous total output, that Hutchinson is remembered today. He was a natural teacher. "*Next to the ambition to discover something new*", he said, "*the desire to spread knowledge is the noblest aspiration of the human mind.*" Treves, a younger consultant surgeon at the London Hospital, wrote that "*Hutchinson attracted a larger number of students to his demonstrations than any other surgeon of his time in London . . . He was an admirable speaker. He was not eloquent . . . but adopted a slow, quiet, solemn and modest manner which was very impressive.*"²⁸ Medical

students were an unruly group in those days, but Hutchinson was greatly respected by his large following. He was considered to be infallible, and his students would pack the lecture theatre to "hear what Jonathan would say."

Hutchinson took life very seriously. To a contemporary he was "not exactly genial or very approachable, being originally of a shy nature . . . yet there was a magnetism about him, the magnetism of a man wholly possessed for the search for truth."²⁹ He worked continuously and almost never took a holiday, his visits abroad being for consultation with colleagues. He was never in a hurry, and seemingly never tired. Nettleship, the gentle and retiring ophthalmologist who succeeded him at Moorfields, wrote: "Few could see much of Hutchinson without feeling the attraction of his great power and balanced enthusiasm. It was perhaps the quality, fullness and comprehensiveness of his information, coupled with his abiding sense that it was his duty to teach what he was continuously learning, that gave to his personality an almost fearsome charm."³⁰ Like his friend Fournier, Hutchinson was wholly a clinician. "It is necessary to confess that I have for many years worked but little in the post mortem room and still less in the laboratory."³¹ His gifts lay in patient observation leading to the accumulation and collation of facts. Osler regarded him as "the greatest generalised specialist of his generation, the last of the polymaths."³¹

Hutchinson wished his epitaph to be: "a man of hope and forward-looking mind." He remained a student and a seeker after truth to the end of his life, and the last glimpse we have of him is at Haslemere, a few days before his death. It was too cold to go out, and as he sat by the fire he was studying the logs in his wood basket, comparing the tumours of trees with those of humans—a naturalist to the last.

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Accepted for publication 30 May 1990.